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Finance for Developing Countries

Alternative Sources of Finance

Debt Swaps

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Group of Thirty
New York & London

About the Authors

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The study group on Alternative Sources of Finance for Developing Countries was set up by the Group of Thirty as a contribution to its general work on international economic and monetary issues. Publication of this Report does not imply endorsement by the Group of any of the views expressed.

Finance for Developing Countries

Table of Contents

	Page
Foreword	i
Study Group on Alternative Sources of Finance for Developing Countries: A Summary Report Richard A. Debs *Chairman of Study Group*	1
Debt Swaps: A Technique in Developing Country Finance David L. Roberts & Eli M. Remolona	15

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Foreword

In 1984, a study group was formed under the auspices of the Group of Thirty to review the external debt problems of the developing countries and to explore the possibilities for alternative ways of financing the development of those countries, apart from commercial bank loans. At that time, the debt problem had become critical, the rescheduling of existing bank debt had been initiated, and it was becoming clear that there would be a substantial need for additional funding to support minimum levels of growth in the developing countries. It was also clear that the additional funding would not be forthcoming from the commercial banks in the amounts required. The objective of the study group was to explore alternative sources and means of finance that might increase and enhance the flow of external funds to the developing countries in order to meet their ongoing development needs.

Participants in the study group included the following individuals, all of whom participated in their personal capacities:

Richard A. Debs, (Chairman)
President, Morgan Stanley International Incorporated

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President, Geoffrey Bell & Company

Robert Bench
Deputy Comptroller of the Currency, U.S. Treasury

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Yoshio Terasawa
Executive Vice President, Nomura Securities Co.

Marina Whitman
Vice President & Group Executive, General Motors Corporation

Joseph Wood
Vice President, World Bank

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Chairman, Gise, AG

The study group also had the benefit of participation from time to time of the following individuals:

Michael Barth
Senior Investment Officer, International Finance Corporation

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Former Governor, Board of Governors of the Federal Reserve System

H. David Willey
Advisor, Morgan Stanley International Incorporated

During the course of its study, the study group had the benefit of several staff papers prepared for its use, one of which was a paper on debt swaps by David L. Roberts and Eli M. Remolona of the Federal Reserve Bank of New York. This paper explored a financing technique that might enhance the flow of funds to the developing countries. In view of the increasing use of this technique in connection with developing country debt, the Group of Thirty is now publishing a revised version of that paper.

This report also includes a summary of the perceptions and findings of the study group prepared by its Chairman, Richard A. Debs.

David Holland
Executive Director

Study Group on Alternative Sources of Finance for Developing Countries A Summary Report*

Richard A. Debs, *Chairman*

When it was formed in 1984, the Study Group's objective was to attempt a long term view of the debt problem, to look beyond commercial bank lending and the rescheduling of it, and to explore possible sources of external finance that might serve as alternatives to the conventional commercial bank syndicated loan facilities, which have been the principal source of external funding for the LDCs in recent history. It was then the Study Group's view—borne out by subsequent events—that the amount of new funds available through commercial banking channels would be limited, and in any event would not be adequate to meet the financing required to sustain a reasonable level of growth—however those requirements might be defined and measured. The task for the Study Group was to consider and explore alternative sources, channels, mechanisms, and techniques that might assist in meeting the external financing needs of the LDCs as commercial bank sources diminished in relative importance.

The Study Group found it useful to view sources of external finance for development purposes as falling into three categories, defined according to the source of funds. The first comprises commercial bank credit, through a banking system which functions as an intermediary. The extension of commercial banking credit for LDC financing in the last decade has been primarily in the form of medium-term, floating

*This summary does not necessarily reflect the views of each of the participants in the study group, nor of the institutions with which they are affiliated.

rate, syndicated loans. The second comprises all other private sector sources of finance in which commercial banks do not act as intermediaries, but where credit is extended by other private sector parties in the role of lenders or investors. This category involves the use of financial instruments of all kinds in the capital markets as well as direct investment by business enterprises. The third category includes all governmental, or official, sources of finance. These include government overseas development agencies and funds functioning on a bilateral basis, and multilateral agencies such as the World Bank or IMF.

The original focus of the Study Group was primarily on the second category—private sector non-bank sources. The use of normal commercial bank syndicated loans was clearly not going to meet the ongoing needs of the LDCs for development finance, and the Study Group wanted to explore the potential for alternative sources from the private sector. They viewed the third category, of official finance, as a residual category.

Enhancing the use of bank loans

In their analysis, the Study Group looked first at possible mechanisms for enhancing the use of existing conventional commercial bank loans. The Study Group did not focus on rescheduling techniques *per se*, nor was it interested in the various proposals put forth in recent years for the transfer, in effect, of the LDC debt to official sources. Rather, it was interested in market based mechanisms for increasing the liquidity or otherwise improving the attractiveness of the conventional commercial bank loans, with a view to encouraging incremental funding.

Without attempting to describe them in detail, it may be noted that the main techniques considered were the sale or exchange, or swaps, of LDC loans on the books of commercial banks; possible mechanisms for converting LDC loans on the books of commercial banks into equity investments in LDCs; and techniques for currency switching or changing the currencies in which commercial bank loans to LDCs are denominated. The group also looked at co-financing arrangements through which commercial bank loans could be paired with loans by the IBRD or the regional development banks as means of activating additional commercial bank participation.

Background papers were prepared on these techniques, and the work on both loan swaps and equity swaps was undertaken by David Roberts and Eli Remolona of The Federal Reserve Bank of New York. In view of its particular relevance at this time, it is presented here in the form of the attached study on Debt Swaps.

As stated in the Study Group document in March 1986, "The concept of conversions of debt to equity holds out considerable promise and should be pursued vigorously by lenders and borrowers alike, but there are clearly limits to the number of opportunities for equity investment that may be available through this mechanism".

In general, the Study Group believed that all of these techniques for enhancing the use of existing loan portfolios should be pursued in that they may serve to provide a measure of assurance to commercial bank lenders that there is greater liquidity and flexibility in their LDC loan operations, and thereby encourage greater participation in new lending. These techniques would appear to be effective in doing so in cases where the borrower has made progress toward re-establishing access to new funding; they may not have as significant an impact in other cases.

Other lending facilities

Apart from financing mechanisms focussed on outstanding bank loans, the Study Group also reviewed the use of alternative commercial bank facilities, other than medium-term syndicated bank loans, that might be utilized with greater emphasis or in innovative ways, to channel additional finance to the LDCs. One general area involved trade finance, and a re-emphasis on this traditional form of commercial bank facility; another focussed on project finance and alternative techniques that might be involved there as well, including secured asset financing, leveraged leasing, and the greater use of co-financing. Co-financing was also reviewed as a separate topic in connection with World Bank financing innovations. With respect to trade finance, the Study Group reviewed traditional channels, both private sector and official export credit, and also explored the use of private sector insurance coverage and the use of hedging instruments, such as options and futures, to manage risk better.

In general, the Study Group was of the view that these facilities had not been adequately utilized and developed in the last decade in connection with LDC financing, and that they held the potential for meeting a part of the overall financing needs of LDCs in the future if they were actively pursued, with opportunities for applying innovative financing techniques to traditional instruments in appropriate cases.

Liability management and innovations

The Study Group also reviewed the general question of liability management from the point of view of the borrowing LDCs and their use of financing innovations that have been developed in recent years.

Chief among these have been interest rate or currency swaps, which can be employed with advantage both as liability management tools and as funding mechanisms. Other financing vehicles were also reviewed—such as those involving the use of the options or futures markets. In all of these cases, attention was focussed on areas in which official investors, such as the World Bank, might play a supporting role.

Based on its studies, the Study Group felt that these innovations should be further utilized by the LDCs and could be very effective tools both in terms of managing existing debt and in terms of achieving more attractive terms for new borrowings.

Capital markets

Another major category of alternative finance reviewed by the Study Group is that of the worldwide capital markets. The Group examined many facets of these markets, both national and international, public and private, debt and equity, etc., and paid particular attention to the far-reaching changes that have taken place in these markets in recent years and their implications for LDCs.

Bonds

The Study Group reviewed in-depth studies of the history of the bond markets and prospects for the future use of those markets by the LDCs. Historically, the international capital markets have been a source of finance for developing countries for a far longer period than has commercial bank lending. However, for various historical reasons, including the rapid development of the commercial bank syndicated loan market in the 1970's, the bond markets for LDC credits atrophied to a large extent. When commercial bank loans were readily available, LDC borrowers were not generally interested in the bond markets; when commercial bank loans became less available after 1981, it was not easy to re-enter those markets.

In analyzing the prospects for expanded capital market financing, the Study Group focussed on the extensive structural changes that have taken place, noting the rapid overall growth of the bond markets world wide during the last few years, as well as the development of many new markets and the proliferation of new financing instruments in those markets. The Study Group also noted the beginnings of what might be a trend in an increasing use of the bond markets by LDC borrowers, recognizing also that such borrowers were among the more credit-worthy LDCs. The Study Group believed that the LDCs in general should focus again on the international bond markets as future

prospective sources of external financing in order to be in a position to access the wide variety of markets and instruments that now exist, as opportunities arise and as their credits improve.

Equity capital

The other major component of capital markets examined was that of the equity markets. The Group focussed first on foreign investment in domestic capital markets of the LDCs, which has developed at a rather surprising pace over the last several years. Until recently, the securities markets in developing countries were virtually unknown in the international financial community. However, this has begun to change as the idea of broad international diversification is becoming one of the basic tenets of portfolio management. Companies in a number of the stronger newly-industrialized LDCs such as Singapore, Malaysia, Korea and Mexico, have already been included in some institutional portfolios, and the number of such stocks being followed by U.S. and other securities analysts is growing rapidly.

While investment directly in LDC company shares is growing significantly, a large portion of foreign equity investment in LDCs is accounted for by off-shore country funds. In essence, these are mutual funds composed of shares in LDC companies and sold in the markets of developed countries. Recent examples are the Mexico, Korea, Malaysia and Thailand funds. The IFC has been very active in encouraging and sponsoring these types of funds, as well as portfolio investment in LDC capital markets generally, and has been very successful in its efforts. The Study Group believes that country funds have an important potential for attracting new money to LDC markets, recognizing that the amounts involved may be limited.

The Study Group also noted the growing moves to privatize parts of the public sector in many developing countries. Where such companies are profitable, the sale of these shares would present an opportunity to make a concerted effort to attract foreign investor interest.

In general, the Study Group endorsed initiatives to foster portfolio investment in LDCs. It noted, however, that there are a number of factors which presently inhibit the growth of such investment. Many LDCs, for example, still prohibit foreigners from investing in their markets, while others impose restrictions on the amount or type of stock a foreigner can buy.

A second inhibiting factor is that several developed countries have regulations which limit the percentage of a portfolio which an institutional investor may place abroad. The Group felt that these regulations

could be reviewed and, that consistent with prudential considerations, limits might be raised or exemptions granted for certain types of LDC investment.

Finally, it goes without saying that the equity market will provide significant new funds only to credit-worthy entities in credit-worthy countries, and only where the climate for foreign investment is hospitable. In this connection the Study Group suggests that LDCs consider taking the following steps:

- removing foreign exchange and other restrictions associated with foreign portfolio investment;
- requiring equal treatment of foreign and domestic investors;
- removing or reducing capital gains taxes and withholding taxes on dividend income;
- removing or shortening the minimum period during which foreign portfolio money must remain invested;
- improving and standardizing the provision of company information and auditing requirements.

Although necessarily limited to the higher-income countries, the Study Group believes that over the longer term, cross-border equity investment in LDC markets ought to be encouraged and could provide a growing long-term source of incremental funding.

Flight capital

The Study Group also looked at a closely related subject—the encouragement of the repatriation of "flight capital" as a source of funds. The issue, which is an important one, has several dimensions. The first involves reasons why capital leaves an LDC in the first place. The basic answer is that investments abroad may be much more attractive, particularly if an exchange rate regime encourages conversion. This dimension of the problem relates to exchange rate policies and the removal of inducements for capital flight. The other dimension of the question relates to the possible means for repatriating investments abroad by means of especially targeted funds or other inducements.

The problem is a difficult one to define, let alone resolve. In these days of deregulation, liberalization of financial flows, and the integration of world capital markets, investors' funds will tend to flow into markets and instruments that are relatively more attractive than others.

The Study Group was not prepared to endorse the kind of capital controls that are necessary to staunch the outflow in the first instance. Rather, they thought that first priority should be given to exchange rate adjustments and in the longer run, to laying the base for making

investments within the country as attractive as those available abroad. This could be achieved by general conditions, such as the development of an attractive local stock market; or by mechanisms targeted at expatriate funds, such as special bond issues.

Foreign direct investment

The Study Group reviewed in depth the mechanism of foreign direct investment (FDI), both as a potentially major source of financing and as a medium for longer term development. Historically, FDI has played an improtant role in both these respects.

In the last few years, FDI flows have been relatively depressed. After reaching a peak of $14 billion in 1981, they fell to under $10 billion a year in 1983-86. This decrease was caused in part by cyclical influences—the recession of the early 1980's, low commodity prices—and also by government policies and financial conditions in the LDCs that have deterred FDI from playing its classical role as an engine of economic development.

At present, however, economic and political circumstances would appear to favor a return towards the classical pattern where FDI constitutes a principal channel for the transfer of resources from developed to developing countries. The emphasis on large-scale state enterprises, and the ideological hostility toward the multinational corporation, have lessened. A new appreciation of the contribution that private capital (both foreign and domestic) can make to development is evident in both host country governments and the officials institutions.

The Study Group believes that foreign investment has an importance well beyond any immediate contribution it makes toward financing payments deficits. Indeed, FDI cannot be seen as a "quick fix" for payments crises. But by improving the competitiveness and efficiency of host economies it can clearly in the long run enhance export potential and credit-worthiness—in the broader sense. The Study Group viewed this as perhaps the most important contribution of FDI to development.

The Study Group reviewed a set of policies that might be followed by both home and host country governments to encourage FDI which was based on a survey of major corporations conducted by the Study Group in 1985. In brief, it argues that policy should be directed at encouraging investment in general (whether by domestic or foreign investors), with the emphasis on creating a stable economic and financial environment rather than on specific incentives for foreign companies. The companies themselves say they often do not want such incentives or

disregard them. Also, specific incentives discriminate against domestic investors.

The Study Group regarded FDI as potentially the most important channel of additional private financing for developing countries. Given appropriate policies by the LDCs, and assuming that protectionist pressures are resisted in the OECD countries and that the world economy continues its gradual recovery, the Study Group believed that FDI could increase significantly. In such favourable conditions, it could in time regain its previous levels and possibly even reach $20-25 billion. However, at present companies are extremely cautious in making new investments; many suffer from excess capacity and depressed demand in their main overseas markets. So it is unlikely that FDI will reach its full potential in the near term; it is equally unlikely that the volumes of new external finance provided by this source alone will come close to meeting the requirements of the LDCs.

Insurance and guarantees

The Study Group reviewed the possible role of insurance and guarantees in supporting each of the alternative financing mechanisms it studied as well as their potential direct role in facilitating funds flows. They looked both at private sector insurance in support of these private sector mechanisms, and at official insurance schemes.

Historically, insurance coverage with respect to international financial flows has primarily been a governmental function. With recent innovations in the financial services industry, however, the role of private sector insurance has become increasingly important. The main development of this trend has been in domestic markets, primarily the United States, where insurance coverage is now available to cover a wide variety of financial instruments.

In terms of international transactions, private sector insurance coverage has also been increasing, although less dramatically. One area of coverage has been in trade finance, where programs such as TRAFCO can provide insurance coverage for export loans and also provide liquidity through the sale of "pass-through" certificates to investors.

Private sector insurance is also available to cover investments in other countries. They supplement the official programs, discussed below, and have the potential for playing an important role in the future as investments in LDCs begin to increase as conditions improve.

One current problem that has arisen is the treatment of insurance in the case of rescheduling of debts where insurance coverage may be involved. In order to encourage insurance companies to remain in this

business, care should be taken that they be treated equitably in rescheduling operations.

Apart from coverage by insurance companies, risk management techniques are also available in the private sector through the use of options and futures and related hedging techniques. These can be used in export finance, for example, in setting a floor or ceiling on a commodity price; or they can be used on financial instruments, where a given interest rate can be "insured". They are in widespread use in domestic markets, but not yet employed in LDC finacing operations.

With respect to governmental schemes, insurance guarantee mechanisms sponsored by official agencies have been in existence for years, primarily in the area of export credit and bilateral investment coverage. More recently, agreement was reached to proceed with the process to establish the Multilateral Investment Guarantee Agency (MIGA). The Study Group endorsed the concept of MIGA, and believed that it will constitute another important vehicle for the encouragement of investment in the LDCs. In general, the use of official insurance and guarantee schemes can be effective in supporting and encouraging private sector flows, and the size and structure of MIGA should enable it to have an important impact in this respect.

Observations on private sector alternatives

Having reviewed all of the alternative means of financing set forth above as well as other ideas and proposals not covered here,[1] the Study Group was encouraged that their further development and use promised substantial benefits in attempting to cope with the LDC debt problem in the longer term. Each of the mechanisms referred to offers the potential—in greater or lesser degree—for incremental financing sources for the LDCs to help meet their development needs. In some cases these mechanisms, in addition to providing larger funding sources, may also contribute to the development process and internal domestic growth as well. Examples include the encouragement of foreign portfolio investment, which is closely linked to the development of domestic capital markets in the LDCs, which in turn facilitates a more effective mobilisation of domestic savings for development purposes. Another example is the encouragement of foreign direct investment, which is closely linked to the development of the private sector in the LDCs, which is a crucial factor in the development process in general. To the extent that equity capital is involved, the timing of dividend payments is linked to the capacity to pay. Naturally, however, a continuing flow

of equity finance will not be forthcoming unless there is the prospect of returns which are commensurate with the risk of the investment.

In the course of its work, the Study Group also reviewed the history of development finance and attempted to place the present LDC debt problem in an historical perspective. One of the conclusions reached was that the 1970s and 1980s have been an aberration in financial history in the sense that the primary channel for financing the development of the LDCs has been through the commercial banking system, in the form of syndicated medium-term floating rate general purposes loans. Never in history has the main thrust of development finance been through commercial bank lending, and there are special historical reasons for this recent development. The 1970s began with the termination of the gold standard, and then the emergence of a floating exchange rate regime, the complete restructuring of the Bretton Woods system, the oil price shocks, the recycling process, all accompanied by volatility in both exchange rates and interet rates. The financing needs of the LDCs could most easily be met through the commercial banking system which enjoyed a high degree of liquidity as a result of the recycling process. The large amounts required led to syndications; and the volatility in interest rates led to floating rate pricing. The demand for funds was clearly there and the supply of funds was available in the commercial banking system—and not, as discussed elsewhere, from official sources. At the same time, the borrowers had less interest in other sources of finance such as the bond markets, which were then primarily fixed rate and not of a size to meet the LDC demands, or foreign direct investment, which again had size limitations and which in many countries was actively discouraged by nationalistic policies.

In any event, the syndicated bank loan was by far the most important channel of development finance during that period, yet historically the financing of development overseas has always involved in a major way other private sector channels such as the bond market, the equity share market, project finance, and direct foreign investment. In modern times, official sources of finance have also been important.

The Study Group found this perspective to be encouraging in terms of longer run solutions to the present debt problem. The greater use of financial mechanisms other than commercial bank loans should not be considered extraordinary, but rather a natural return to a more normal pattern of development finance in historical terms. Little attention has been paid to these other financing mechanisms—whether they be traditional or innovative—because until recent years the need to do so was not there, and more recently because the immediate demands of the

rescheduling process have consumed the attention of lenders and borrowers alike. For the longer term, the Study Group believed that these alternative private sector channels must be further developed and that the governments of both the LDCs and the developed countries should give an immediate priority to encouraging their further use and removing obstacles to their full utilization. Unlike the commercial banks, who have had an incentive because of their existing exposures to continue funding, and unlike official agencies who have policy mandates to assist in development finance, the private sector lenders and investors who are the alternative sources of funding have no compelling reason to participate in development finance other than the economic benefits they perceive in it. Accordingly, the inducements should be clear and strong.

Having observed that these alternative financing mechanisms must be given an immediate priority as part of a longer term solution to the debt problem, the Study Group could not conclude that they will provide near-term relief. Totalling the sums that may be available through each of them in the immediate future, even on the most optimistic basis, it is difficult to see how they, by themselves, can provide anything near the funding required given the diminution in commercial bank new money flows, and the level of financing of the LDCs necessary to maintain a reasonable rate of growth, quite apart from servicing their debt.

Official sources

For purposes of its study, the Group also reviewed official sources of finance. It did so with two objectives in mind: first, to study how the official institutions might utilize financing techniques that would be supportive of some of the private sector initiatives discussed above; and second, to review the role and function of the official institutions as residual sources of incremental funding not available elsewhere. In the light of the Study Group's conclusions with respect to private sector alternative financing mechanisms, and given the assumptions with regard to commercial bank funding, and taking into account the best estimates of the financing needs necessary to sustain a reasonable level of LDC growth, it became clear that it would be essential both to increase the level of official financing and to enhance its effectiveness.

In their historical perspective of development finance, the Study Group reviewed the role of official sources of finance over the years and, as indicated above, noted that the proportion of official funding to total development flows diminished significantly in the 1970s. At the beginning of that period, when the role of the Bretton Woods institutions

was in question, and there was uncertainty as to how the recycling process would evolve, it was the commercial banks, rather than official agencies, which assumed the primary role in development finance. Before then, official sources, together with private sector channels other than commercial bank loans, provided by far the greater part of development finance. In the 1960s, for example, official sources accounted for approximately 80 percent of LDC funding, with the private sector accounting for about 20 percent. By 1980, private sources provided over 60 percent, with official sources dropping to 40 percent. Viewed against this historical background, any increase in official funding in the future may be seen to be a return to a more normal pattern rather than an extraordinary new policy course.

The Baker initiative recognized the crucial role of the official agencies. The initiative proposed mutual commitments by the various parties concerned to take actions that would serve to promote growth in the LDCs, as the optimal solution both for the debt problem and longer term development needs. The parties concerned included the commercial banks, which were requested to pledge new money over a three-year period; the governments of the LDCs, which were called on to adopt domestic policies designed to promote growth through the development of private sector initiatives, foreign investment, and other policies; the Bretton Woods institutions, and the World Bank in particular, which were called on to place greater emphasis on programs to promote structural growth and to accelerate disbursements under those programs; and lastly, the governments of the developed countries, which were called on both to support these programs and to provide the necessary resources to the World Bank and the other Bretton Woods institutions to enable them to carry out the programs.

No program can work without the support of the Bretton Woods institutions and member governments' implicit commitment to provide the resources necessary in the future. If any program for growth is to be successful, there will likely be a need for a capital increase for the World Bank to ensure that success. This increase would be required as the World Bank reaches the limit of its lending power as it extends major structural and sectoral adjustment loans to support the goals of the program. Since the bank is limited by its conservative one-to-one gearing ratio (loans may not exceed capital), it will be necessary to increase its capital to permit it to make more loans. The actual funding of the loans is in the market place; only a modest fraction of the increased capital need be paid-up and thus it need not require any significant expenditures on the part of the subscribing member countries.

In many ways, the involvement of the governments and the international institutions may have been the most important aspect of the Baker initiative. It provides the underpinning, for the future, of the programs called for in the plan. In the light of the probable financing needs of the LDCs over the next few years, the probable reduction in the levels of new money from the commercial banks, the practical limits on the amounts of new money that can be raised in a short time by means of all of the alternative sources of finance reviewed by the Study Group, it seems clear that a greater role for the official institutions will be essential. Without such a leadership role, the chances for a successful solution to the problem seem slight indeed at this point. With such a role, the chances for success are much improved; and if the prospects for success are perceived to be improving, the prospects for further developing the alternative sources of finance reviewed by the Study Group should also improve significantly. For the time being, however, they do not provide a near-term solution.

Footnote

[1] In addition to the work contributed by Study Group participants and the staff of their own organizations, the Study Group also benefited greatly from discussions with, and work done by, other groups and individuals on related subjects. Members of the Study Group were in continuing contact with these other groups and individuals, who were most generous in sharing ideas and research. The Study Group would like to acknowledge and thank in particular the following groups and individuals for their assistance and contributions in this connection. In many cases, the results of their research has been published, as noted in the listing below, and together constitute a significant core of reference materials on these subjects.

- Institute for International Economics: C. Fred Bergsten, Director; John Williamson, Senior Fellow; William R. Cline, Senior Fellow. Publications: "Financial Intermediation beyond the Debt Crisis," Donald R. Lessard and John Williamson, 1985; "Bank Lending to Developing Countries: The Policy Alternatives," C. Fred Bergsten, William R. Cline and John Williamson, 1985; "International Debt: Systemic Risk and Policy Response," William R. Cline, 1984.
- Overseas Development Council: Series on US-Third World Policy Perspectives. John W. Sewell, President: Richard E. Feinberg & Valeriana Kallab, editors of the series, including in particular "Investing in Development: New Roles for Private Capital?," Theodore Moran and contributors, 1986; and "Between two Worlds: The World Bank in the Coming Decade," Richard Feinberg and contributors, 1986.
- The Committee for Economic Development, Subcommittee on Finance and Third World Growth, of the Research and Policy Committee. Robert C. Holland, CED President; James W. McKee, Subcommittee Chairman, and Isaiah Frank, Project Director. Draft publication: "Finance and Third World Growth," (projected 1987).
- Council on Foreign Relations, Study Group on Capital Constraints on LDCs: Robert Callander, Chairman; Dorothy Sobol, Group Director.
- Chamber of Commerce of the United States, Task Force on International Economic Development of the International Policy Committee.
- The Bretton Woods Committee: James C. Orr, Executive Director.

Debt Swaps: A Technique in Developing Country Finance

David L. Roberts and Eli M. Remolona*

Table of Contents

		Page
Overview		16
1.	**The Nature of LDC Debt Swaps**	18
1.1	Taxonomy	18
1.2	Market structure and prices	19
1.3	Debt-debt swaps	21
1.4	Debt-equity swaps	22
1.5	Debt-peso swaps	24
1.6	Portfolio contamination	25
2.	**LDC Adjustment and Financing**	27
2.1	Defining the issue	27
2.2	Additionality	28
2.3	When debt conversions help	32
2.4	Misallocation of resources	33
2.5	Round-tripping	35
2.6	Controlling money supply	36
2.7	Raising new money	37
2.8	Concluding remarks	38

*The views expressed are the authors' and do not necessarily reflect those of the Federal Reserve Bank of New York, or the Federal Reserve System.

Overview

Debt swaps provide a useful technique to ease the financial problems of some less developed countries (LDCs). The potential size to which this market can grow is limited, however, and debt swaps can have adverse side effects that must be carefully monitored. This paper explores the strengths and weaknesses of this alternative approach to managing LDC debt.

Since the LDC financial crisis broke out in 1982, the debt swaps market has grown to reach an annual volume of perhaps $5 billion in 1986. Recent growth has been fueled mainly by new schemes allowing the conversion of debt into equity or local currency. These conversions underpin a secondary market where LDC loans trade at substantial discounts to face value.

Debt swaps can take various forms, and each has advantages and pitfalls. Debt-debt swaps between outside creditors provide banks and other creditors some flexibility in managing their exposures and can marginally ease the difficult rescheduling process if exposures are shifted to banks more willing to participate in new lending to LDCs. At the same time, however, these swaps provide no direct benefit to the country while they complicate the assignment of responsibility for new money.

Debt-equity swaps involving conversion into equity and debt-"peso" swaps that convert debt into local-currency liabilities can help if they attract additional foreign equity investment or bring about a return of flight capital. Given such "additionality", debt-equity and debt-peso conversions replace some debt requiring immediate hard-currency payments with liabilities that may be more favorably matched with the country's balance of payments needs. Swaps also tend to enhance privatization, perhaps reducing the burden of a large state-owned sector.

These advantages of debt conversion, however, must compensate for two major drawbacks. First, conversions rely on preferential exchange rates, which may distort trade and waste foreign exchange and, in the extreme, result in new capital flight. Second, they earmark proceeds of capital inflows to repay external debt rather than provide foreign exchange for other uses. Without additionality, these problems are likely to outweigh the advantages.

In sum, the present debt swaps market can provide a valuable margin of help in some situations, as long as the potential adverse effects are recognised and held to a minimum. The market's inherent limitations, however, imply that it is unlikely to reach sufficient size to replace the need for other financing sources. And, as the market grows, the negative side-effects may increase even more rapidly.

In the first section of this paper, we describe the various types of LDC debt swaps and the market in which the deals are made. In the second, we discuss the potential effects of the various swaps on LDCs and their banks.

1. The Nature of LDC Debt Swaps

1.1 Taxonomy

LDC loans include both sovereign and private-sector debt denominated and payable in a currency other than the country's own. Sovereign debt may be debt of the national government, the central bank, or a state-owned firm, or, in some cases, it may be private-sector debt assumed by the government because of a public guarantee. Most of the debt being swapped is sovereign debt subject to rescheduling and owed to banks.

Three basic types of debt swaps may be distinguished: debt-debt swaps, debt-equity swaps, and debt-peso swaps. Actual deals are complex and often combine the various types, with cash exchanged as well.

A debt-debt swap is a change of creditors holding LDC loans. Typically the parties assign loans or give sub-participations to each other without otherwise changing the terms of payment. The trade may be between only outside creditors: a U.S. bank swapping Argentine debt with a European bank for Chilean debt. Or it may involve an inside creditor: a Brazilian bank swapping its holdings of Mexican debt for Brazilian debt with a U.S. bank. Deals are structured to equalize face values, and cash is often used to compensate for differences in market values (e.g., $10 million in Country A debt for $8 million in Country B debt plus $2 million in cash).

A debt-equity swap is a deal converting an LDC's debt into foreign equity in a domestic firm. As such, the swap serves as a vehicle for foreign direct or portfolio investment. While the equity itself is denominated in the local currency, the terms of conversion may allow the investor future access to official foreign exchange for dividend remittances and capital repatriation, though perhaps with tighter restrictions than the usual ones for foreign investment. The equity position may be held directly

by the original holder of the debt or by a foreign multinational. Soon, foreign institutions may begin to hold positions indirectly, through closed-end funds. Multinationals normally pay cash for the debt. For them, a typical debt-equity swap often involves several debt-debt swaps to assemble enough paper for conversion into equity.

When conversion of LDC debt involves a resident of the country instead of a foreign investor, we term the deal a debt-peso swap, where by "peso" we simply mean local currency. Hence, debt-peso swaps are designed for the repatriation of flight capital. Residents buy their own country's debt in the secondary market using their funds abroad or foreign currency acquired in the parallel market. They then present the paper to the central bank or the original borrower for redemption. Assets are redenominated into the local currency, as in a debt-equity swap, but the proceeds do not always have to be invested directly in a firm.

1.2 Market structure and prices

The market for the three types of swaps has been growing rapidly but remains small in relation to the amount of LDC debt outstanding. Estimates of market size vary widely, and the chain of transactions required to complete a typical swap makes double counting likely. Based on our own estimates and on interviews with market participants, perhaps $12 billion in swaps has been accomplished since 1982, counting only net shifts in portfolios. In 1986, perhaps $5 billion in swaps took place, after netting out debt-debt swaps ultimately linked to debt conversion. Some estimates for 1986 go as high as $8 billion, but we suspect this figure includes substantial double counting. By comparison, the bank debt of the 15 LDCs listed in the Baker Initiative totals roughly $300 billion.

Before 1985, probably three of four swaps were debt-debt swaps that did not end in a debt conversion. But this pattern is changing dramatically, as countries like Chile, Mexico, and the Philippines set up programs that make debt-equity swaps attractive to investors. In addition, Chile has a debt-peso program that has converted even more debt than the country's debt-equity program. Since 1982, about $5 billion of LDC foreign-currency debt has been replaced through debt-equity and debt-peso swaps. Debt-debt swaps are increasingly becoming just links in a chain of transactions leading to debt-equity and debt-peso swaps. Cash sales of LDC loans are also required for debt-equity swaps where the investor is not the original creditor and for debt-peso swaps. But the volume of cash sales would still likely be much less than a quarter of the gross total of swaps.

The supply of debt for the three types of swaps tends to come mainly from European banks and regional U.S. banks, though at least one large Japanese bank and some Latin American banks have also supplied paper.[1] Among the major money-center U.S. banks, for a time only one was known to be swapping large amounts of loans from its own portfolio. Another bank is reported to have sold $125 million of its exposures in the smaller debtor countries. The recent increase in loan loss reserves by some banks will likely add to the debt swaps market but the magnitude of the impact on the market is impossible to predict.[2]

Four or five major American money-center banks participate prominently as intermediaries, along with investment banks in New York and merchant banks in London. A number of investment boutiques have been active intermediaries, but they have been losing market share. Bid-offer spreads together with intermediation fees are 1 to 2 percent for typical deals of $2 million to $5 million involving debt that is regularly traded, but may range as high as 4 percent for smaller deals or in paper not so frequently traded.

The spreads are steep and vary widely due to transactions costs. Deals are intricate, require much customized documentation, and involve many counterparties. One participant described a typical deal as involving ten banks and debt of a dozen countries. The loans that are now easiest to trade are reportedly those of Chile and Mexico, accounting for perhaps two-thirds of the market. Before February 1987, Brazilian paper was also fairly heavily traded in debt-debt swaps.[3] Other loans in which there has been significant activity include those to Argentina, Ecuador, Ivory Coast, Morocco, Philippines, Poland, Romania, Venezuela, and Yugoslavia. A typical deal takes two months to complete but some deals might require three months. Some intermediaries report that they are beginning to keep small inventories of LDC debt to facilitate deals.

Some intermediaries also provide price lists for cash sales of various LDC loans, as well as barter ratios for debt-debt swaps. The lists show deep discounts to face value for most debt of rescheduling countries as well as price volatility for some countries (see Table 1). During 1986, for example, the discount on Mexican public-sector debt widened from less than 30 percent of face value to over 40 percent, while Philippine debt traded up by over 10 points during the last quarter of the year. The discounts may not always be driven by fundamental prospects for loan repayment; they seem to be affected also by the degree of disagreement among banks or between debtors and creditors over specific rescheduling programs.[4] One consistent pattern has been a substantial

Table 1

Indicative Bid-Offer Prices for LDC Loans[a]

(Cents on the Dollar)

Country	Jul 85	Jan 86	Jul 86	Sep 86	Dec 86	May 87
Argentina	60-65	62-66	63-67	65-67	65-67	58-60
Brazil	75-81	75-81	73-76	74-76	75-76	61-63
Chile	65-69	65-69	64-67	66-69	67-69	67-70
Ecuador	65-70	68-71	63-66	62-66	65-66	50-54
Mexico	80-82	69-73	56-59	58-62	56-57	57-60
Nigeria	N.A.	N.A.	N.A.	55-60	36-42	37-40
Peru	45-50	25-30	18-23	20-24	18-20	14-16
Philippines	N.A.	48-52[b]	N.A.	57-62	72-75	68-72
Poland	55-60	50-53	42-45	50-53	42-44	45-47
Venezuela	81-83	80-82	75-78	75-77	74-75	72-74

Source: As published in International Financing Review, *various issues.*

[a] *Not firm quotes; sometimes no transactions take place at these rates.*

[b] *Feb 86.*

narrowing of bid-offer spreads since 1985, evidence perhaps of increasing liquidity in the market.

For the most part, however, these circulated prices and ratios remain either historical or merely indicative. Very rarely are they firm quotes. One intermediary said it might be ready to stand on its quotes but only for the few actively-traded LDC loans in the market.

1.3 Debt-debt swaps

The onset of the debt crisis in 1982 changed the whole constellation of perceived risk-return characteristics and administrative burdens of bank exposures to LDCs. Banks have therefore moved to realign their portfolios. Much of the activity in debt-debt swaps reflects this realignment, of which the main objectives appear to be consolidation, liquidity, and tax reduction.

In most debt-debt swaps, the result appears to be a greater concentration of country exposure in bank portfolios rather than greater diversification. Banks have been swapping LDC loans in an effort to consolidate their exposures into a few countries where they have long-term strategic interests or to get out of countries presenting little prospect of future improvement. All banks, of course, do not end up with the same few countries. Individual banks assess different risks for countries and often have different long-term investment interests in countries. Hence, LDC

debt tends to be traded to concentrate a bank's exposure in those countries where it perceives a comparative advantage.

A number of debt-debt swaps have taken place purely for tax reasons. For example, a Dutch bank operating in New York swapped its Mexican public-sector debt carrying tax receipts for Mexican public-sector debt not carrying tax receipts. The tax receipts meant that withholding taxes on the debt's interest earnings had been paid in Mexico, and the receipts could then be used to offset tax liabilities elsewhere. The bank apparently could not fully use the receipts because taxes it owed in New York were low.

In swaps involving an inside creditor, liquidity is often a motive. Specifically, the debt crisis prompted withdrawal of foreign deposits from many LDC banks, leaving the banks with liquidity problems. For example, in 1983, a Brazilian bank swapped its holdings of largely Mexican paper for an equal face-value amount of cash and largely Brazilian paper held by a New York bank.[5] Not only did the deal provide liquidity but it also gave the Brazilian bank an asset structure that more closely matched its liabilities. The loss of foreign deposits meant that a larger share of the bank's liabilities was now made up of Brazilian deposits, and the swap increased the bank's holdings of Brazilian debt on which it could presumably collect in cruzados if not in dollars. Note that only the cash part of the swap provided the bank any means to repay dollar liabilities. Moreover, debt swaps with an inside creditor reduce potential sources for future new money since the inside creditor is unlikely to have foreign exchange to contribute to a new-money deal.

1.4 Debt-equity swaps

The impetus for debt-equity swaps has been the willingness of some LDCs to buy back their debt using local currency, provided the proceeds are invested in the country. At the moment, three countries have active programs allowing conversion of debt into equity: Chile, Mexico, and the Philippines. As of April 1987, these three countries together had authorized conversion of about $1.4 billion of their debt into foreign equity (see Table 2). As part of its April 1987 rescheduling arrangement, Argentina agreed on a debt-equity program that would initially allow $300 million a year in debt conversions. In a previous program that lasted six months in 1985, the country had already converted about $500 million. Brazil is estimated to have converted over $2 billion of debt in 1982-84, but new restrictions in late 1984 slowed conversions. Nigeria and Ecuador are thinking of setting up new programs, while Costa Rica and Jamaica have announced their programs.

Table 2

Debt-Equity Conversions

(Millions of U.S. Dollars in Face Value, April 1987)

Country	Total Authorized[a]	Period of Program
Argentina	500	Feb. to Aug. 1985
Brazil	2,300	Since 1982[b]
Chile	420[c]	Since June 1985
Mexico	950	Since May 1986
Philippines	60	Since April 1986[d]

[a] *Note that authorized conversions may differ from amounts of debt actually cancelled. In Mexico, for example, of $953 million authorized as of April 1987, $722 million in face value of debt had been cancelled.*

[b] *Since November 1984, only direct swaps by original creditors may be registered for purposes of future capital repatriation or dividend remittances.*

[c] *Chapter 19 only. In addition, about $780 million more has been retired through debt-peso swaps (Chapter 18).*

[d] *Program formally launched only in August 1986, but the figure includes swaps accomplished between April and August.*

Multinational interest in these schemes stems from the fact that LDC debt has been available in a secondary market at discounts to face value that far exceed redemption discounts. For example, in late 1986, Mexican public-sector debt was selling at 57 cents on the dollar. To convert the debt into pesos, Mexico's Hacienda was taking an average redemption discount of 11 percent. If fees to the intermediary were 2 percent, a multinational could get 53 percent more pesos (100 minus 11 minus 2, divided by 57) through a swap than by purchasing pesos at the official exchange rate. In effect, the foreign investor is able to purchase pesos at a subsidized rate in order to make certain authorized investments. This is a form of preferential exchange rate, although this term is seldom used in connection with these transactions. Similarly, swapping Chilean debt, which could sometimes be redeemed at face value, could get the foreign investor up to 40 percent more domestic currency. Swapping Philippine debt, which could be redeemed with the central bank at a 5 percent discount for selected investments, could yield 24 percent more domestic currency.

Sometimes the original creditor undertakes the investment directly, bypassing the secondary market and thereby perhaps preserving book values for its assets. The creditor may benefit by giving up an asset with

downside risk and no potential for capital gain and getting an asset still with downside risk but with some potential for large gain. In January 1986, Bankers Trust swapped $60 million in loans to Chile for about half of the Provida Pension Fund and 97 percent of a life insurance company associated with Provida. In March 1987, American Express arranged to swap $100 million in loans to Mexico for an equity stake in a project to build luxury hotels in four Mexican cities.[6]

A twist to debt-equity swaps is the setting up of closed-end funds to which subscribers contribute LDC paper. The fund manager negotiates the terms of conversion with the LDC government and builds up an equity portfolio. For the Philippines, Shearson Lehman Bros. is putting together the First Philippine Capital Fund, with perhaps four-fifths of a planned $250 million issue coming from debt contributions. The Overseas Private Insurance Corporation (OPIC) has agreed to insure it against political and transfer risk. The International Finance Corporation (IFC) is exploring the creation of similar but even more ambitious funds for the Philippines, Mexico, and other countries, perhaps with political and transfer risk insurance from the Multilateral Investment Guarantee Agency (MIGA).

1.5 Debt-peso swaps

Apart from attracting foreign equity investment, the Chileans and Filipinos are also trying to lure back flight capital. Hence, their debt-peso programs provide de facto amnesty for nationals who have taken funds out of the country and are willing to bring the money back. No questions are asked about untaxed income assets may have earned abroad or the means by which the nationals got the money out of the country. Mexico also may be considering debt-peso swaps.

In the Chilean case, the proceeds of conversion do not have to be invested directly in a firm, and residents can choose to be paid in various ways, typically in the form of long-term debt indexed to the country's price level. This debt-peso program, known as "Chapter 18," has been more popular than the debt-equity program known as "Chapter 19." Perhaps 65 percent of about $1 billion in Chilean debt redeemed between June 1985 and December 1986 came under Chapter 18. In the Philippines, residents can avail themselves of the same debt conversion program open to foreign investors.

In principle, the new assets created by a debt-peso swap would require future servicing only in local currency, assuming the income from the external assets that are swapped into pesos had not been available to finance directly or indirectly the country's external liabilities.

If the assets were generated by flight capital, this seems a plausible assumption, but it is difficult to assert with certainty that flight capital is the only source for these funds. By contrast, a debt-equity swap creates an obligation that eventually will be serviced in foreign currency, although the timing of these payments may be more advantageous than for the underlying debt.

1.6 Portfolio contamination

One important reason U.S. regional banks swap or sell more loans from their own portfolios than U.S. money-center banks stems from book-value considerations.[7] These considerations are more likely to matter for public-sector debt than for private-sector debt.

A May 1985 opinion notice of the American Institute of Certified Public Accountants (AICPA) said swaps are to be accounted for at "current fair value" and that the "estimated fair value of the consideration received will generally be less than the recorded investment in the consideration paid," in which case "a loss should be recognised."[8] The release noted that valuation for noncash swaps is "highly judgmental" and that two banks could reach different conclusions on the same swap. In essence, booking a loss is inescapable in the case of a cash sale at a discount, but the notice leaves banks some leeway on how to treat a swap of equal face-value amounts. Hence, many banks will not sell for cash but will agree to a debt-debt swap if the deal is structured to equalize face values.

The threat of swaps contaminating the rest of the loans to the same borrower divides banks with small exposures from those with large exposures to the same borrower. The AICPA notice added that whether or not there was a swap, "in the course of preparing financial statements, a bank must review the loan portfolio in order to assess the adequacy of the allowance for loan losses." This admonition was reinforced by a circular from the Comptroller of the Currency dated May 22, 1985: "If a loss from a swap transaction is attributable to a major concern as to collectibility, then there should generally be a presumption that a reserve for losses on other loans to that debtor is warranted."

Some banks appear to behave as if swaps would subject the rest of their loans to the same borrower to review. In practice, even if a swap transaction led to a write-down of loans remaining on a bank's books, it would not necessarily affect all the loans to the country. With purely private-sector debt, one obligor is treated as a separate borrower from another obligor in the same country, and swapping the debt of one would not affect the debt of the other. With public-sector debt, the

distinction is less clear. It is not always obvious whether the loans to one parastatal should be treated separately from loans to the central government or to another parastatal. Hence, the risk of contamination is more of an issue with public-sector debt than with private-sector debt.

Since their exposures to the public sector in major debtor LDCs are large relative to the size of the debt swaps market, money-center banks are unable to dispose entirely of their exposures. But swapping a fraction of their public-sector exposure to a country and writing down or reserving against the remainder might have a major effect on their books. Regional banks can avoid the contamination problem by selling "all or nothing." But since this option is not open to money-center banks, they have been reluctant so far to swap debt from their own portfolios even at equal face-value amounts.

Given the exposure and type of debt, the likelihood of portfolio contamination is greatest in the case of a cash sale at a discount, since there is then no ambiguity on reporting the transaction. A regional bank, for example, reported that in late 1986 it sold LDC loans at a $2 million loss and took a write-down of $39 million in anticipation of later sales of other loans.[9]

Write-downs of exposures to LDC debtors would have a larger impact on U.S. money-center banks than on smaller banks. While the aggregate capital position of these major banks has been improving dramatically, their total LDC exposure as a proportion of their capital still exceeds that of small banks. According to the "Country Exposure Lending Survey" of the Federal Financial Institutions Examination Council, all U.S. bank claims on non-OPEC developing countries fell from 149 percent of capital in June 1982 to 88 percent in December 1986. In contrast, for the nine major money-center banks, LDC exposure declined from 223 percent of capital in June 1982 to 141 percent in December 1986.

2. LDC Adjustment and Financing

2.1 Defining the issue

Dealing with LDC debt—While there have been various proposals on how to deal with the LDC debt crisis and while the actual approach taken has evolved over time, any viable approach must contain two elements: sound adjustment and structural reform by rescheduling countries; and continued financing from creditors, including governments, multilateral institutions, and commercial banks.[10] The first is necessary to restore growth and rebuild the LDCs' capacity to service external debt. The second is necessary because orderly adjustment generally requires some amount of financing to maintain trade and to fill the gap between domestic saving and the investment needed for long-term growth. LDC debt swaps can ease this adjustment and financing process, within limits and under certain circumstances.

Sound adjustment—Debt-equity and debt-peso swaps have been criticized as interfering with sound adjustment by LDCs by causing loss of control over the money supply or the exchange rate. More importantly, however, as we explain later, swaps could serve to misallocate resources, including scarce foreign exchange. On the positive side, debt-equity and debt-peso swaps could help by converting an LDC's foreign debt into obligations with payments that the economy might be better able to handle. Moreover, they could encourage privatization of firms that would otherwise be burdensome to the economy.

Bank financing—Continued external financing from commercial banks could be hampered by swaps. Debt-equity and debt-peso swaps could reduce the potential sources for future new money, while debt-debt swaps could complicate the assignment of responsibility for new money. However, debt-debt swaps could help if they shift exposures to creditors more willing to take part in rescheduling exercises for particular

countries. Also, cash sales generated by debt-equity and debt-peso swaps could give some of the unhappiest creditors a way out, adding some needed flexibility to the rescheduling process.

The issue—On balance, it is not immediately clear whether a growing market for LDC debt swaps will help or hinder the rescheduling process. Some of the problems mentioned above can be avoided. If handled carefully, debt-debt swaps need not interfere seriously with raising new money, nor need debt-equity and debt-peso swaps cause loss of control of the money supply. But other problems are fundamental to debt-equity and debt-peso swaps. These swaps shrink bank exposures over time and thus could eventually hinder the raising of new money. Moreover, the swaps rely on the existence of a preferential exchange rate, which may waste resources or entail self-defeating controls to protect official exchange reserves. They also serve exclusively to repay external debt rather than provide foreign exchange for other possible important uses. The issue is, therefore, whether the problems are outweighed by the benefits.

The key factor—The answer turns largely on the degree of what we term "additionality," that is, the ability of debt-equity swaps to attract foreign equity investment that would not otherwise come in, or the ability of debt-peso swaps to attract flight capital that would not otherwise come back. Without additionality, the benefit of substituting foreign equity or domestic debt for external debt is slight at best, since the country could achieve most of the same ends by earmarking foreign exchange to pay off some creditors. Swaps may still provide some flexibility to banks or serve as a signal of the country's willingness to accept foreign investment and privatization, but additionality brings with it decisive advantages.

2.2 Additionality

The advantages of debt-equity and debt-peso swaps depend on the degree of additionality. Suppose a foreign multinational has already decided to invest a specific sum directly in an LDC. If the LDC government then introduced a conversion scheme allowing that amount of investment to take place through a debt-equity swap, there would be no additionality. By contrast, suppose instead that the multinational previously had no intention to invest, but the chance to invest through a swap changed that decision. Then the firm's investment in the country would embody additionality.

In practice, it is hard to tell the difference. For example, about half of the approved Mexican conversions in 1986 were swaps by five

multinational automobile manufacturers. These investments had been planned as early as 1982, four years before Mexico had a debt conversion program. It would seem that there was no additionality in this case. But the issue is whether and when Chrysler or Volkswagen, two firms which have made the largest investments in Mexico through debt-equity swaps, would have gone ahead with their plans if not for the enhanced terms offered.

An illustration—Net foreign direct investment in Mexico averaged roughly $500 million a year in 1983-85 and total external debt at end-1986 was about $100 billion. Suppose that in the absence of debt-equity swaps the country requires $6 billion in new money from banks. To provide an extreme example, suppose Mexico introduces a debt-equity program, but additionality is zero. Table 3 shows the effects. Foreign investors still put up $500 million. Since this investment takes place through debt-equity swaps, Mexico has $500 million less in foreign exchange flows into the central bank than otherwise, causing the new money requirement to rise (or foreign exchange reserves to drop) by $500 million. Assuming the discount on Mexico's debt in the secondary market is a third of face value, the swaps retire $750 million in external debt. But because of the rise in new money, the net effect on debt is a drop of only $250 million. Mexico's net debt increases $5.75 billion instead of $6 billion.

Table 3
Hypothetical Impact of Debt-Equity Swaps
(millions of U.S. dollars)

	No Debt-Equity Conversion	With Debt-Equity Conversion	
		No Additionality	With Additionality
(1) Foreign investment	500	500	1,000
(2) New money need	6,000	6,500	6,500
(3) Debt retired through swaps (at 33.3% discount)	—	750	1,500
(4) Net debt retired (after increase in new money)	—	250	1,000
(5) Net new debt: (2)—(3)	6,000	5,750	5,000
(6) New foreign equity (at 10% redemption fee)	500	675	1,350
(7) Total new foreign liability: (5)+(6)	6,500	6,425	6,350
(8) Ratio of new equity to total new liability (6)/(7)	7.7%	10.5%	21.2%

While the investors' outlay is $500 million, for purposes of future capital repatriation and profit remittances their investment is registered at the redemption value of the debt. If the redemption discount is 10 percent, new registered foreign equity in Mexico is $675 million. The redemption fees save Mexico $75 million, since net liabilities to foreigners (debt and equity) rise less than without swaps. The liabilities also seem to have a better mix. More than 10 percent of new liabilities is in the form of equity, compared with about 8 percent otherwise. These benefits, however, appear slight when we consider the amount of outstanding debt and the country's need for a larger sum of new money. If creditors refuse to provide the additional new money, any benefit from lower interest payments will almost certainly be outweighed by the loss of potential foreign exchange. If investment would come in anyway, in the absence of debt conversion the investment would provide foreign exchange for the country to use as it chooses. It can then choose to repay debt or use the foreign exchange for other purposes.

With additionality—Suppose instead that additionality is such that the debt-equity program causes foreign investors to double their investment to $1 billion but that Mexico is not able to restrict access to the program to only the "truly additional" $500 million. The new money need rises to $6.5 billion, as in the case without additionality. But the swaps retire $1.5 billion in debt, so that net retirement is $1 billion and net debt rises $5 billion. The reduction in debt burden remains slight but it is four times greater than before. Redemption fees save the country $150 million in terms of a smaller increase in foreign liabilities, twice the savings without additionality. Equity makes up 21 percent of new liabilities, twice the proportion without additionality. The benefits appear more substantial and more likely to outweigh the difficulty of having to request a larger sum of new money.

Additionality would have a similar effect with debt-peso swaps, except that the new liabilities would be in the form of debt requiring servicing in local currency rather than equity that ultimately requires servicing in foreign currency. If foreign exchange turned out to be a critical constraint in the future, the liability mix resulting from a debt-peso swap might be less burdensome to service than that resulting from a debt-equity swap of the same size.

Direct swaps into equity or debt contributions into a closed-end fund by the original creditors seem to hold the most potential for bringing about additionality. Since most creditors did not intend to invest directly when they first made loans to LDCs, these swaps give them an equity position they would otherwise not hold. The local

currency value of the equity position, and thus the effective exchange rate for the conversion, could depend more on direct negotiation with the host government than on prices in the secondary market. The government can in principle set what it considers an appropriate effective exchange rate. Closed-end funds, however, are limited by the size of the local capital market and the value of parastatals and other assets that the government may privatize or sell.

Need for supporting policies—Investment over the long term depends primarily on the expected profitability of business opportunities, which in turn depends on the economic climate, extent of capital controls, and other regulatory hurdles. Better investment policies are desirable not only for their own sake but also as a means to reinforce whatever additionality debt-equity and debt-peso swaps might have. The opportunity of an investor to take advantage of the discounts in the secondary market can induce some additionality, but even more can be induced if the country moves towards more liberal investment policies.

Direct purchases and redemption fees—Assuming the country were able to obtain the larger sum of new money required, it would seem to benefit from debt conversion, because the redemption fee would reduce the amount by which its total new liabilities would rise and because somewhat less of these liabilities would be in the form of debt requiring fixed payments in foreign currency. In the absence of additionality, however, the country hypothetically could do even better if it instead came to the secondary market directly to buy up its own debt. While direct debt purchases result in unequal treatment of creditors through selective repayment and violate specific covenants in syndicated loan agreements, it is hard to prevent some LDC governments that have particularly poor relationships with their creditors from nonetheless making limited purchases through their own financial institutions and other parastatals.[11]

By purchasing the debt directly rather than indirectly through debt conversions, the country could take the full market discount for itself instead of the redemption fee only, and in the process avoid problems a preferential exchange rate may cause. In our example, the country could buy back $750 million in debt with the proceeds of the $500 million in foreign investment that would have come in anyway. After new money, net new debt would be $5.75 billion, the same as in the case of no additionality. But now new foreign equity claims would be only $500 million instead of $675 million, and total new foreign liabilities would be $6.25 billion or $175 million less than in the case of no additionality. It is true that this example is not entirely realistic since

creditors would be unwilling to provide any new money at all while the country is using part of the proceeds to buy back its own debt. Nevertheless, the example does demonstrate that the country would make the most out of a debt conversion program in the absence of additionality by charging a redemption fee as close as possible to the market discount.[12]

With sufficient additionality, a debt conversion program can produce positive results that could not be matched by direct purchases. In our example with additionality, total new liabilities would be $6.35 billion or $100 million more than if the country allowed no debt conversion but used $500 million in foreign exchange reserves to buy back its own debt in the market. However, net new debt would be $5 billion or $750 million less than if the country bought back its own debt. If the country charged a high redemption fee, less foreign investment would flow in, since additionality implies that this flow is sensitive to the effective exchange rate. A higher redemption fee would mean lower total new liabilities than otherwise but more of these liabilities would be in the form of debt rather than equity.

A moral hazard—One problem with the country itself coming to the secondary market to buy back its debt is the resulting moral hazard. In the extreme, the country would have a perverse incentive to pursue poor policy or take unilateral action on its debt to depress the market price and buy it back at a low price. In most circumstances this risk would be small, since such actions would worsen the country's relationships with its creditors while providing little benefit to the country. But if creditor relationships deteriorated markedly for other reasons, the temptation could grow. Debt-equity and debt-peso conversions, however, avoid this moral hazard. Foreign investors receive most of the gain from discounts. Even if the country charges a high redemption fee, moral hazard will not be severe, since the policies that would lower the market price of debt would also create economic conditions that would discourage foreign investment or the return of resident capital even at the depressed market price.

2.3 When debt conversions help

One main advantage of debt-equity swaps with additionality is that they replace a debt liability that requires immediate service with an equity liability (albeit of somewhat greater amount) that presumably will better fit the country's ability to pay. The host country's balance of payments may benefit from postponed payments in hard currency.

Some programs explicitly restrict profit remittances and capital repatriation on investments through debt-equity swaps so that they do not exceed the payments the underlying debt would have required for the first several years.[13] Eventually, however, investors expect to remit earnings. These earnings tend to rise when the economy is strong and to fall when it weakens. If exports rise in line with the economic upturn, the balance of payments is likely to accommodate the dividend outflows with little difficulty. Set against this, however, is the possibility that as the economy turns down or as the balance of payments deteriorates, investors might attempt to liquidate their positions.

Similarly, for debt-peso swaps with additionality, a debt liability that requires service in foreign currency is replaced with a liability that requires service only in local currency.

A second important advantage of debt conversions is that additional investment may go to the acquisition of firms held by the government. Such firms often suffer from poor management and depend on state subsidies. Privatization through debt-equity or debt-peso swaps may put more effective management in place and in any case would relieve the government of the fiscal burden.

Even without additionality, the discounts inherent in debt-equity swaps may advance the timing of foreign investment. Investment planned for the future may be brought forward to take advantage of what may be perceived as temporarily favorable terms for purchasing domestic assets. As a result, the balance of payments may enjoy a respite because of slightly lower service payments, offset by lower capital inflows in the future. Even without additionality, however, there may be some advantage if privatization occurs sooner rather than later. The government may save on subsidies to money-losing firms and the economy as a whole may benefit from improved management.

2.4 Misallocation of resources

The advantages offered by debt conversion should be weighed against the problems it may cause, in particular a possible misallocation of resources. Debt-equity and debt-peso swaps may misallocate resources in two ways: (a) by relying on preferential exchange rates, which may send the wrong signals for investment; and (b) by earmarking the proceeds of foreign equity investment or returning flight capital for the retirement of external debt, thereby excluding other possible important uses. In other words, is it appropriate to use the exchange rate to subsidize certain capital inflows? And is it appropriate to employ the foreign exchange so gained to retire debt?

Foreign investors, and perhaps domestic investors from whom equity is purchased, gain from debt-equity swaps and nationals from debt-peso swaps because of the discounts in the secondary market. In choosing who may gain from the discounts, the government is in effect granting a subsidized preferential exchange rate. Like other types of price distortions, a preferential exchange rate is advisable only in certain limited circumstances. A preferential rate for certain capital inflows ultimately penalizes exports, import substitutes, and other sectors that earn or save foreign exchange. Consequently, resources that otherwise would be invested in the economy's traded goods sector go elsewhere. The fact that investment comes into the economy because it is made profitable by a debt-equity or debt-peso swap does not necessarily mean the investment is good for the country. The investment may go into protected sectors and worsen production distortions, or the rate of return on investments by foreigners, net of the preferential exchange rate, may exceed that received by domestic investors in competing activities. Moreover, as we explain below, a preferential rate encourages "round-tripping," which could deplete official exchange reserves.

The ideal way to attract the desired capital flows would be to remove other price distortions or artificial barriers, perhaps by means of currency devaluation, interest rate deregulation, and a relaxation of capital controls. Policy authorities may have reasons, however, for not choosing the "first-best" measures of letting prices adjust to competitive levels and removing various controls. The preferential exchange rate in debt-equity and debt-peso swaps may be used to compensate for existing distortions. The government may also decide the subsidy is worthwhile as a visible signal of the country's eagerness to attract foreign direct investment. This "second-best" approach seems to be a conscious policy in both Mexico and the Philippines, where the redemption discounts for debt-equity swaps depend on the specific purpose of the investment.

Debt-equity and debt-peso swaps may further misallocate resources by earmarking the foreign-exchange proceeds of capital inflows for the retirement of external debt. In some situations, there may be better uses for foreign exchange, e.g., to pay for imports. If the best use of foreign exchange for a country were in fact to repay some of its debt, then the earmarking would not be a problem. It is a problem, however, when a rescheduling country asks for a sizeable amount of new money through concerted lending. An apparent inconsistency arises: the country can afford to repay part of its debt through a swap, but still needs to stretch out debt repayments and ask for new money. In fact, as we have noted, swaps tend to increase the amount of new money required.

The inconsistency can be qualified, however. Debt tends to be rescheduled in large tranches or categories. A country may not be able to repay a whole tranche, but to repay a little debt may help to buy off a few troublesome creditors with small exposures. The swaps in effect allow certain types of selective repayment that rescheduling agreements do not handle very well. Hence, allowing swaps in small amounts while trying to reschedule is not always inconsistent. Still, large-scale conversions seem hard to justify when there is at the same time a large request for new money.

2.5 Round-tripping

Debt-equity and debt-peso programs require the maintenance of more than one exchange rate. This opens an opportunity for arbitrage, which, left unchecked, could deplete official exchange reserves.

Firms and individuals earning foreign exchange would be loath to surrender hard currency to the government at the official exchange rate. Thus they have an incentive to under-invoice exports or not declare service receipts. Similarly, importers would over-invoice to obtain more foreign exchange from the government than they need. Having engineered capital flight through under-invoicing and over-invoicing, exporters and importers could then bring the capital back into the country at the more favorable exchange rate offered by debt-peso swaps. This "round-tripping" uses up official exchange reserves. The government loses reserves with capital flight but gains no reserves on the return trip, since returning capital is used to retire external debt.

Chile has an auction system that mitigates but does not eliminate the incentive for round-tripping. The system does shift arbitrage pressure from the foreign exchange market to the market for cupos. So long as a preferential exchange rate is maintained for debt-peso swaps, a tendency for round-tripping seems unavoidable.

Debt-equity swaps are also a potential vehicle for round-tripping. Foreign firms that would otherwise retain earnings in the country are instead encouraged to take funds out and bring them back through swaps, taking advantage of the preferential rate. Even if the firms invest in new activities or plants, it is still possible that they have hastened profit and capital repatriations to exploit the preferential rate. These swaps again carry no additionality while they deplete foreign exchange through debt redemptions.

To protect official exchange reserves from round-tripping, the government may tighten exchange and capital controls. Unfortunately,

as the previous discussion suggests, these controls can weaken additionality and add to existing distortions in the economy.

2.6 Controlling money supply

There has been concern that if debt-equity and debt-peso swaps grow large enough and additionality is substantial, swaps can cause loss of control of the money supply. In Chile, for example, debt-peso swaps have been so popular that authorities have worried about the amount of cash the swaps inject into the system. This injection would take place with any foreign equity investment or return of flight capital, whether or not the inflow comes through a swap. The swap will only affect the money supply to the extent that it increases capital inflows.

There is no such injection if the peso proceeds come entirely from the original obligor. Also, redemptions in domestic debt are automatically sterilized. However, if the original obligor is bankrupt or the government is the obligor, the central bank may ultimately provide the money. Moreover, in many LDCs the scope for sterilization is limited by a shallow market for domestic government debt or by fiscal constraints on servicing that debt, particularly when domestic interest rates exceed the foreign rate. The problem is the usual one of how to sterilize in the face of large capital inflows.

The Chilean authorities seem to have found a way to manage this problem. The Chileans limit debt-peso redemptions in a given month to the amount that can be effectively sterilized. Rights to conversion, called "cupos," are auctioned off to domestic banks, which then distribute them to customers. The cupos have commanded as much as 16 percent of the peso price of the investment. The terms of redemption are negotiated with the original obligors who are thus also able to get a share of the discounts available in the secondary market. The government itself and other state entities are major obligors. The resident undertaking the swap typically ends up with a discount of about 5 percent.

The cupos now allow debt-peso swaps of about $60 million a month, or roughly 10 percent of the monetary base each month. This seemingly high rate of conversion has evidently not exceeded the economy's scope for sterilization. In the first year the swaps were allowed (June 1985-June 1986), annual consumer price inflation in Chile fell from about 33 percent to 20 percent. While other countries may not have as wide a scope for sterilization, countries like Mexico and the Philippines seem to have a long way to go before their conversion programs grow to the same relative magnitude as Chile's. The annual volume of conversions

in Chile for debt-equity and debt-peso swaps together has been running at twice the size of the country's monetary base. In contrast, the total amount of conversions in Mexico has been about 10 percent of the monetary base, and in the Philippines, under 3 percent.

2.7 Raising new money

The issue of new money for LDCs is complicated by a free-rider problem that arises irrespective of the existence of a debt swaps market. New money is provided to enhance prospects for servicing existing loans. A bank which fails to participate in new money programs, however, will still share in the benefits. It will receive interest payments and remain eligible for principal repayments. Hence, individual banks have an incentive to resist new lending—in effect, an incentive to become "free riders." The rescheduling process followed since 1982 requires that banks lend in concert to minimize this problem. Since the free-rider problem already makes raising new money difficult, it is important that swaps do not exacerbate the problem. So far, rescheduling agreements have dealt with a changing base for new money by anchoring the base to exposures as of some early date, usually the time the debtor country first declared a standstill on repayments of existing debt.

Debt-debt swaps complicate the process for raising new money. For example, to obtain new money pledges for Mexico's latest rescheduling agreement, banks in the steering committee first approached those who held debts as of August 1982. If debt had been swapped, the committee still looked to the original creditors unless the new holders had agreed to accept any obligation to provide new money.

The tendency of debt-debt swaps to concentrate exposures in a smaller and more homogeneous group of creditors may not be entirely undesirable if the swaps shift exposures to banks more willing to take part in the rescheduling process. Ideally, debt-debt swaps should explicitly reassign new money responsibility to the new debt holders, since they would have the incentive to cooperate. There are practical obstacles to such a reassignment, however, especially if the new creditor is not a bank.

In the case of debt-equity and debt-peso swaps, the swaps reduce the stake of creditors shedding their exposures while the new asset holders have no obligation and little incentive to contribute to new money programs. Decisions for concerted new lending become increasingly hard to enforce on the entire pool of creditors. On the other hand, the most recalcitrant creditors are likely to be the ones getting rid of

their exposures first. While a shrinking pool of creditors may be hard to avoid, a given proportion of new money may be extracted more easily from the remaining banks. Since a smaller number of free riders helps confine the benefits of new money to those taking part in the rescheduling process, each remaining bank may be willing to contribute somewhat more.

2.8 Concluding remarks

Given the magnitude of the financial problems faced by many LDCs, debt swaps are clearly not a panacea. Still, the debt swaps market serves the useful function of a safety valve, allowing the escape of a few creditors that are likely to be troublesome to the rescheduling process, and provides some desirable flexibility in the design of financing programs suitable for both debtors and creditors. Swaps may also ease foreign exchange constraints (at least for a time), foster privatization, and serve as a signal of the country's willingness to encourage foreign investment. All these advantages, however, are bought at some cost, even though the cost may be postponed in the form of a tighter foreign exchange constraint in the future or concealed in unobserved consequences of preferential exchange rates or a premature repayment of debt.

If the debt swaps market grows far beyond its present size, problems may become more severe, and costs may quickly exceed benefits. The distortions created by the preferential exchange rate and earmarking of foreign exchange could become more pronounced. The advantages of permitting some recalcitrant lenders to exit could be offset by the increased new money responsibilities placed on the remaining banks. Ultimately, a much larger, more active LDC debt swaps market could complicate an already difficult rescheduling and adjustment process without providing overriding benefits for either debtors or creditors.

Footnotes

[1] See W. Ollard, "The Debt Swappers," *Euromoney* (August 1986), 69-77. In March 1987, 28 Japanese banks established a joint factoring company in the Cayman Islands to buy LDC loans from Japanese banks at "fair market value" and to use the interest on and repayments of the loans to pay dividends to the selling banks.

[2] See T. H. Hanley, J. M. Rosenberg, C. A. D'Arista, "J. P. Morgan & Co.—An Analysis of 1986 Earnings Reveals that Fourth-Quarter Results Could Have Been Better," Salomon Bros. Stock Research (January 19, 1987). On May 19, 1987, Citibank announced that it was setting aside $3 billion as loss reserves for its LDC loans and that it would swap some loans for equity. This action was followed by some other U.S. and U.K. banks.

[3] On February 20, 1987, Brazil announced a suspension of interest payments on term bank debt.

[4] The Philippines is a case in point. The country's debt sold for 53 cents on the dollar in the last days of the Marcos regime. Seven months later, the debt commanded 9 cents more after the Aquino government announced a debt-equity program and as the Filipinos came close to an IMF agreement. But when negotiations with commercial banks broke off in November, the price of the debt rose 13 more cents, a 21 percent gain over the September level. Some observers contend that the lack of a specific rescheduling package meant there was less reason to rush to the secondary market to sell Philippine paper.

[5] G. Hector, "The Banks' Latest Game: Loan Swapping," *Fortune* (December 12, 1983), 111.

[6] For the Provida deal, see "Bankers Trust Swapping Chile Debt for Two Firms," *Journal of Commerce* (January 9, 1986), 1A. For the American Express deal, see "Amex Bank Signs Debt-for-Equity Deal With Mexico," *Financial Times* (March 19, 1987), 1.

[7] The recent provisioning by Citibank and other large U.S. banks may change this pattern. Guttentag and Herring explain that, in general, book values are important to banks because of their vulnerability to a loss of confidence. Bank stockholders may see through book values and not want book values to reflect market values, since this would reduce their informational advantage over depositors. Depositors tend to pay attention only to news bad enough to put their claims at risk. Given this one-sided concern with downside risk, a sharp drop in reported earnings due to specific provisioning or loan write-downs could weaken depositors' confidence. See J. Guttentag and R. Herring, "Disclosure Policy and International Lending," *Journal of Banking and Finance* 10 (1986), 75-97. The concern over book values implies that changes in accounting or regulatory rules that affect the recording of LDC loans can significantly alter the willingness of banks to swap or sell such loans.

[8] "Notice to Practitioners on Accounting for Foreign Loan Swaps," *The CPA Letter* Special Supplement (May 27, 1985).

[9] "Mexico Tie to Republic Write-Down," *New York Times* (January 15, 1987).

[10] See, for example, Paul A. Volcker, "Statement before Senate Committee on Banking, Housing and Urban Affairs, February 20, 1985," *Federal Reserve Bulletin* (April 1985), 219; Peter B. Kenen, "A Bailout Plan for the Banks," *New York Times* (March 6, 1983); the speech by U.S. Treasury Secretary James A. Baker III before the Joint Annual Meeting of the IMF and World Bank, Seoul, Korea, October 8, 1985; and the speech by Senator Bill Bradley, "A Proposal for Third World Debt Management," delivered at the Congressional Summit on Exchange Rates, Zurich, Switzerland, June 29, 1986.

[11] R. S. Weinert asserts that Argentina and Venezuela have done so but presents no evidence; see his article "Swapping Third World Debt," *Foreign Policy* (Winter 1986-87), 85-97.

[12] This is consistent with the economic principle that to minimize tax distortion, the goods for which quantities are least sensitive to prices should be taxed the most. One way to set a redemption fee proportional to the discount would be to require a fixed amount of new money or of additional investment for every dollar of face value of debt conversion. Argentina's proposed debt-equity program requires one dollar of new money for every dollar of debt, but 50 cents of that new money is already in the rescheduling package, so only 50 cents more is actually required. This amounts to a redemption fee (paid in the form of new money) equal to one-third of the market discount.

[13] On investment made through a swap, Chile allows no profit remittances for five years and no capital repatriation for ten.

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